

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

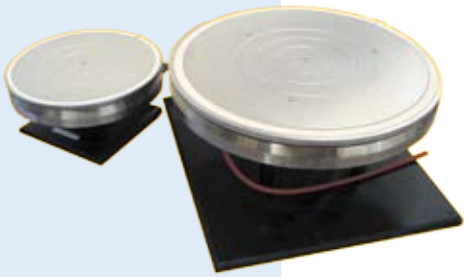
Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Micromanipulator C1000* at our website: ***Click HERE***

H1000 Thermal Chuck Systems





The H1000 series thermal chuck system supports wafer testing from -65 to 400 degrees C*, and offers several configurations to fit your application and budget.

Choose a heating power supply either an AC heating power supply for fast heating when chuck noise in the femtoamp level is not needed, or choose a DC heating supply to achieve the very lowest noise levels.

Choose a cooling option. The C1000 simple heat exchanger (HE) cooling option is the economical choice if your requirements are only for high (above ambient) testing. The heat exchanger provides rapid cool down of the chuck to near room temperature after a heat cycle is finished.

Choose the C1000 zero degree option for testing to zero degrees** This option also provides best performance for holding temperatures around room ambient temperatures.

Choose the HC1000 high performance cooling system to test at temperatures down to -65* degrees C**.

Chucks designed for probing: All control options work with our probing specialized thermal chuck. Designed for probing applications, the chuck design features rapid heat up and cool down, minimizes expansion into the probes, maintains incredible planarity over temperature changes with our Frictionless Kinematic Mount, and minimizes heat radiation into the stage to prolong prober life. Chucks are available to support 150 to 300 mm wafers in coaxial or triaxial configurations

* -65 to 400 deg C range for up to 200 mm chucks, -55 to 300 deg C range for 300 mm.

** Use of a prober integrated dry environment is recommended for low temperature applications to prevent condensation impacting the measurement data, sample or the prober stage.

Micromanipulator

1555 Forrest Way
Carson City, NV 89706

TF : 800.654.5659
PH : 775.882.2400
FX : 775.882.7694

www.micromanipulator.com • info@micromanipulator.com

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



C1000 Heat Exchanger



C1000 Zero deg chillerr



HC1000 -55 / -65 deg chiller

Specifications

Heat Controller

- Range: to +400 deg C (150/200 mm chuck) +300 C (300 mm)
- PID control: Resolution: 0.1 deg C. Stability +/- 0.3 deg above 50 deg C, +/- 1 deg C within 5 deg of ambient.
- Typical ramp rate ambient to max temp (to stabilization):
  - 200 mm chuck (to 400 deg C) < 45 min (AC/DC)
  - 300 mm chuck (to 300 deg C) < 45 min (AC) 55 min (DC)
- 10 calibration points across temperature range
- Interface RS422. RS-232 or GPIB optional

Cooling Controllers

HE: Heat Exchanger model

- Cooling to near ambient. Temperature not actively controlled
- Typical ramp rate from max temp to near ambient:
  - 200 mm chuck (from 400 deg C) < 10 min (coaxial chuck)
  - 300 mm chuck (from 300 deg C) < 10 min (coaxial chuck)

C1000-0: Zero degree model

- PID controlled cooling to 0 deg C
- Resolution: 0.1 deg C. Stability +/- 1.0 deg C
- Max ramp rate from max temp to 0 deg C:
  - 200 mm chuck (from 400 deg C) < 22 min (coaxial chuck)
  - 300 mm chuck (from 300 deg C) < 25 min (coaxial chuck)

HC1000: -65 (-55 for 300mm) degree model

- PID controlled cooling to -65 (-55 for 300mm) deg C
- Resolution: 0.1 deg C. Stability +/- 1.0 deg C
- Max ramp rate from ambient temp to -65 (-55) deg C:
  - 200 mm chuck (from 400 deg C) < 56 min (coaxial chuck)
  - 300 mm chuck (from 300 deg C) < 55 min (coaxial chuck)

Thermal chuck specifications:

- Temperature uniformity (in deg C):
  - Min temp to -15 deg: +/- 2.5% -15 to +50 deg: +/- 1.0%
  - 50 to 250 deg: +/- 1.5% 250 to max: +/- 2.5%
- Offset + Leakage + Noise (combined) triaxial chuck:
  - < 200 fA to 200 deg C < 4pA 200 deg C to max temp
- Electrical isolation ambient:
  - Surface to ground: Triax: >5T ohm Coax: >100G ohm
  - Surface to guard: Triax: >5T ohm Coax: N/A
  - Guard to ground: Triax: >5T ohm Coax: N/A
- Electrical isolation at max temp:
  - Surface to ground: Triax: >10G ohm Coax: >1G ohm
  - Surface to guard: Triax: >5G ohm Coax: N/A
  - Guard to ground: Triax: >5G ohm Coax: N/A
- Chuck capacitance (200 mm - 300 mm):
  - Surface to ground: Coax /Triax: < 200pf - < 500pf
  - Surface to guard: Triax: < 50pf - < 500pf
- Vertical expansion into probes < 10 µm per 100 deg C
- Surface flatness + planarity on prober +/- 5 µm (ambient) < +/- 12.5 µm throughout temp range

Specifications subject to change without notice.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP